



CPEC

Refining the Commission's Work Plan on Student Success: A Progress Report

California Postsecondary Education Commission
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Among its planning and coordinating responsibilities, the California Postsecondary Education Commission is required by state law to assess the ongoing effectiveness of postsecondary education in meeting societal, educational, and workforce needs. At its September 28–29 meeting, the Commission supported staff's proposed work plan to transition from enrollment demand analyses to a broader range of policy issues pertaining to student success and state workforce needs. Student success is the research topic being addressed first.

Staff formed an advisory committee and held two meetings in November. This agenda item outlines a more refined and focused student success work plan, based in part on the suggestions and recommendations provided by advisory committee members. With the assistance of CPEC's advisory committee, the central purpose of the student success study is to:

- Provide the Governor, Legislature, and other constituency groups with a comprehensive analysis of key institutional initiatives being implemented to improve student success.
- Describe the principal benefits derived from those initiatives, report on their progress, describe the major challenges that lie ahead, and outline what institutions plan to do to address those challenges.
- Expand the institutional body of knowledge on student success by conducting original data analysis and policy research.
- Craft state-level policies and implementation strategies to enhance student success, and support noteworthy policies and reform efforts developed by local, regional and national entities.

CPEC is pleased to be assisted by an advisory committee whose members reflect a wide range of expertise and work experience, as shown on page 11. The Commission is also pleased to witness a high level of attention being directed toward student success, locally and across the nation.

For example, the U.S. Department of Education is developing policy and institutional practices to improve success rates for community college students. The Lumina Foundation for Education is partnering with community colleges in its *Achieving the Dream* project to help them increase retention, completion, and success, particularly for low-income and first-generation college students. The project started in 2005 and currently Lumina is working with 120 colleges in 25 states.

As part of the national agenda for higher education, the Obama Administration has called for 60% of American adults to have at least one year of college education by 2020 and for the United States to have the most educated workforce in the world.

In California, Senate Bill 1143 (Liu) was chaptered into law in September 2010. The law requires the California Community Colleges Board of Governors to establish a task force to examine best practices for promoting student success and to adopt a plan for improving student success. The California State University is actively engaged in a student success initiative called Access to Success. The effort is intended to raise the freshman six-year graduation rate by 8 percentage points by 2015, and cut in half the gap in degree attainment for underrepresented minority student groups. All CSU campuses have established graduation targets equal to or exceeding rates comparable to the top quartile of national averages for similar institutions. Nearly all CSU campuses are meeting or exceeding annual graduation targets.

Background to the Study — CPEC Enrollment Demand Analyses

CPEC's enrollment demand studies (*Ready or Not, Here They Come*, March 2010, and *Ready for Learning*, September 2010) serve as useful background information. Access is a principal component of student success, and valid enrollment demand projections are necessary to adequately assess the potential loss in college opportunity that might result if the state, because of other competing social needs, has insufficient funds to fully support enrollment growth. As shown in the display below, undergraduate demand is expected to increase about 16% from 2.5 million in 2008 to 2.9 million by 2019.

DISPLAY I Forecast of Undergraduate Enrollment Demand, 2008–2019

	Public Higher Education			Independents		Total
	UC	CSU	Community colleges	Demographic model	Economic model	
2008	172,775	362,226	1,823,516	129,606	129,606	2,488,123
2009	176,284	370,371	1,897,197	136,119	132,332	2,576,184
2010	179,960	378,910	1,969,143	137,386	133,177	2,661,190
2011	183,811	387,863	2,041,666	138,706	134,720	2,748,060
2012	187,850	397,253	2,060,953	140,055	136,668	2,782,724
2013	192,086	407,099	2,076,558	141,428	138,613	2,814,356
2014	196,448	417,442	2,090,152	142,811	140,554	2,844,596
2015	195,880	419,572	2,103,820	144,154	142,488	2,861,760
2016	194,621	419,405	2,113,684	145,526	144,421	2,872,131
2017	193,701	418,730	2,122,914	146,928	146,351	2,881,696
2018	193,254	417,309	3,130,174	148,365	148,281	2,889,018
2019	193,018	416,106	2,136,779	149,849	150,215	2,896,118
change	20,243	53,880	313,263	20,243	20,609	407,995
	11.7%	14.9%	17.2%	15.6%	15.9%	16.4%

Totals include only the economic model for independents.

The enrollment demand study enabled CPEC to derive answers to important questions related to student access and success, as outlined below.

- The level of undergraduate demand anticipated between 2008 and 2019 by ethnicity for the publicly funded higher education systems and for California's independent non-profit institutions.
- Anticipated improvements in participation by ethnicity that can reasonably be expected given recent trends.
- Anticipated improvements in community college transfer rates given recent trends at public colleges and universities.
- The level of public investment in instruction required to meet increased undergraduate demand over the next ten years at public colleges and universities.
- The gap in educational opportunity by public higher education system that might result if the state is unable to fully fund undergraduate enrollment demand in the near term.
- The amount of additional lecture and laboratory space needed by public higher education system to meet enrollment growth.

The Legislative Analyst's November budget report, *The 2011–12 Budget: California's Fiscal Outlook*, shows that state expenditures are expected to exceed revenues by \$20 billion annually over the next five years if no corrective actions are undertaken. LAO's estimates of future higher education expenditures are based on the assumption of no increase in enrollment at UC and CSU between 2011 and 2016.

Enrollment demand, however, has been increasing in recent years, with improvements in college-going and reform efforts and programs directed toward increasing community college transfers and university completion rates. Limiting enrollment to current levels means that the state would not meet the increase in enrollment demand shown by CPEC's analysis of enrollment trends.

CPEC has consistently urged the Governor and Legislature to provide adequate funding for higher education to serve current enrollment and to address increased future demand. All the previously mentioned state and national efforts to increase educational attainment in the state will require increasing enrollment as well as greater student success. Based on its study, CPEC will continue to urge that California plan for student enrollment growth.

Refining the Work Plan

Similar to the desire to make the purpose of the study more focused, staff invested time in refining the potential list of research questions. Display 2 is an updated list of the proposed research questions. Display 3 expresses those questions as research activities: descriptive research and data analyses, review of literature and institutional reports, research methods and assessment strategies, and policy formulation.

Although the proposed questions and research activities have been enhanced, they remain quite ambitious, given staff's other work obligations. An important task of the advisory committee was to help staff determine which activities should be given the highest priority. Committee members were asked to rank the nine activities involving review of literature and the four activities pertaining to research methods and assessment strategies.

DISPLAY 2 Prospective Research Questions on Student Success

What are the obstacles to enhancing degree production, success rates, and time-to-degree?

Using CPEC longitudinal data, what is the average time for community college students to transfer to UC and CSU? What is the average cumulative unit load when transferring?

What is the enrolled time and elapsed time-to-degree by discipline area?

How does class impaction affect time-to-degree?

What is an appropriate way to identify examples of teaching and instructional practices that are effective in enhancing student learning and grade-getting behavior, including those that involve technology protocols?

What is an appropriate way to identify institutional support programs and policies that appear to be most effective in enhancing student success (e.g., learning communities, innovative student advising counseling, and engagement strategies)?

What are the persistence and completion rates of students from lower-income and lower-performing high schools?

Do persistence and completion rates vary by gender, ethnicity, and socioeconomic status? If so, what are some of the factors that explain these differences?

If persistence rates improve, how will it impact the number of entering students that can be accommodated by higher education institutions?

What are some of the key cognitive and affective student characteristics cited in the literature that appear to be closely associated with student success?

What research methods and designs have been used to disentangle the effects of student characteristics from the effects of institutional support programs and policies in explaining student success?

What methodology would enable CPEC to estimate the net return on investment to the state that would result from increases in continuation rates and decreases in student attrition?

What are the most critical elements of institutional facility and capital planning that promote student success? How can improvements in student success be tied to improvements in student learning environments?

DISPLAY 3 CPEC Student Success Work Plan Organized by Research Activity

1. Descriptive Research and Data Analyses

Using CPEC longitudinal data, derive recent improvements in UC and CSU student persistence and graduation rates by ethnicity, gender, and admission status (i.e., freshman, community college transfer).

Model the increase in undergraduate demand resulting from improvements in persistence and graduation rates. Estimate the increase in enrollment growth funding and physical capacity required to support demand. Determine the possible impact and consequence of increases in cohorts of continuing students on first-time freshmen and transfer admission slots.

Calculate average elapsed time and average cumulative units of students transferring from community colleges to UC, CSU, and selected independent institutions.

Assess the difficulty in determining if there are differences in student attrition and enrolled and elapsed time-to-degree by discipline area.

2. Review of Student Success Literature and Institutional Reports

Identify and consider other measures of student success for possible inclusion in CPEC study. Determine a valid method to conceptualize and operationalize the measures.

Identify major obstacles and barriers to increasing community college transfer, undergraduate degree production, enrolled and elapsed time-to-degree, and student learning.

Identify institutional support programs and policies that appear to be most effective in enhancing student success (e.g., learning communities, innovative student advising counseling, and engagement strategies).

Identify factors that explain difference in success rates by ethnicity and socioeconomic status.

Identify teaching and instructional practices that appear to be effective in enhancing student learning and grade-getting behavior, including those that involve technology protocols.

Track recent trends in college-going for students from low performing public high schools.

Identify critical elements of facility and capital planning that promote student success.

Determine the extent to which class inaction and reduced course offerings impede time-to-degree

Outline some of the key cognitive and affective student characteristics cited in the literature that appear to be closely associated with student success.

3. Review of Research Methods and Assessment Strategies used by Institutions to Measure Student Success

Review and assess research methods and designs that attempt to disentangle the effects of student characteristics from the effects of institutional support programs and policies in explaining student success.

Review methods used to tie improvements in student success to facility and capital planning.

Outline the major challenges faced by institutions that attempt to employ experimental and quasi-experimental methods to investigate the effects of support programs and policies on student success.

Develop a methodology to estimate the net return on investment to the state resulting from increases in continuing rates and decreases in student attrition.

4. Policy Formulation

Following completion of research activities, develop state-level policy solutions and implementation strategies to enhance student success.

Consider the merits of policy recommendations developed by other entities aimed at improving student success.

Discussion of Activities Involving CPEC Descriptive Research and Data Analysis

CPEC staff discussed with the advisory committee the importance of undertaking, at a minimum, research activities 1 and 2 that involve descriptive research and data analysis. With respect to long-range planning, it is crucial that the state be informed of the increase in undergraduate enrollment demand at California public universities that would result from recent improvements in continuation and graduation rates; the increase in marginal cost funding necessary to support larger cohorts of continuing students; the net return on investment to the state attributable to improvements in continuation and graduation rates; the increase in lecture and laboratory that might be required; and the potential impact on first-time freshman and community college transfer admissions if institutions find it necessary to reserve more instructional seats for continuing students.

Each of the aforementioned planning questions can be answered by undertaking activities 1 and 2. The advisory committee members who attended the November 12 meeting did not express any reservations regarding CPEC’s proposed work plan in this area.

Staff provided the committee with an example of the type of descriptive research and data analysis required. Using the CPEC longitudinal database, staff derived recent changes in UC and CSU first-time freshmen and community colleges transfer continuation and graduations. The data were disaggregated by ethnicity and gender. Data for CSU Black and Latino first-time freshmen are shown in Display 4. For the 2000 cohort of Black freshmen, 19.4% graduated within five years. For the 2003 cohort, 25% graduated within five years.

For the 2000 cohort of Latino freshmen, 26.5% graduated within five years. For the 2003 cohort, 30.3% graduated within five years. Both ethnic groups showed improvement in five-year persistence. The five-year persistence rate is defined as the proportion of an entering cohort of freshmen that either graduated within five years or were still enrolled. Improvements in five-year persistence rates are a good indication that the final graduation rate eight years out will show improvement.

CPEC staff will incorporate improvements in graduation and persistence rates in its enrollment demand model to derive the increase in undergraduate demand resulting from those rates.

DISPLAY 4 CSU Five-Year Graduation and Persistence Rates of First-time Freshmen

	2000 cohort	2001 cohort	2002 cohort	2003 cohort
Black students				
Graduated within 5 years	19.4	20.2	21.6	25.0
Five-year persistence rate	46.4	45.2	45.4	48.3
Latino students				
Graduated within 5 years	26.5	25.2	27.0	30.3
Five-year persistence rate	53.9	52.5	53.4	56.4

Discussion of Activities Involving CPEC Review of Literature and Institutional Reports

Display 3 on pages 4–5 shows nine potential research activities in this category. They can be grouped in the following manner: conceptualize and define measures of student success; identify and conceptualize institutional factors (programs, policies, instructional practices, facility planning) that enhance student success; identify and conceptualize student personal characteristics that are associated with student success; and identify barriers to student success. Committee members were asked to identify the high priority and low priority activities. Members were also asked to explain their ratings.

Overall, the first three activities listed under this category were regarded by the committee as high priority activities. These activities involve identifying measures of student success in addition to those traditionally tracked, such as college-going rates, graduation and persistence rates and degree and certificate attainment; identifying major obstacles and barriers to student success; and identifying support programs and policies that appear to be effective in enhancing student success.

Woodland Community College president Angela Fairchild recommended that CPEC consider a goal-based assessment approach, where success is measured with respect to the personal goals of the student. For example, some first-time community college students enroll with the goal of enhancing their basic skills, or take a few courses to better prepare them for a specific employment opportunity. Such students typically do not enroll with the intention of earning a degree or a certificate, or with a desire to transfer to a four-year institution. If researchers only measure certificate or degree attainment, then the understanding of student success becomes very limited.

Some committee members noted that many students have short-term and long-term goals and it is important to measure student success with respect to both. If this is not done, completion rates become difficult to interpret. Members endorsed current efforts to create a set of courses that provide students with an articulated transfer path to CSU and UC across all community college campuses, which could allow students to attend multiple campuses and still stay on track to transfer.

It was recommended that CPEC consider how the quality of a student's educational experience could be used to measure student success, and how personal characteristics of students enhance goal attainment. In this regard, members stated it would be helpful for CPEC to clarify for the state the distinction between an institution's responsibility for enhancing student success on a campus-wide basis and a student's personal responsibility for achieving success.

Committee members pointed out the importance of examining student success in relation to the particular mission of each higher education system. To do otherwise would likely result in conclusions difficult to interpret and address. For example, it was noted that the path linking undergraduate instruction to workforce preparedness is more direct for the community college system than it is for university systems. Karen Yelverton-Zamarripa, a CSU Vice Chancellor, cautioned against developing a student success measure that considers the number of university seniors obtaining jobs in their field of study immediately following graduation as a percentage of the entire graduating senior class. It was suggested that CPEC consider building a student success measure around the relative opportunity for students to acquire valuable work experience and meaningful career internships while enrolled.

In general, low priority research activities entailed identifying effective teaching and instructional practices; identifying critical elements of facility and capital planning that promote student success; and determining the extent to which class impaction and reduced course offerings impede time-to-degree. It should be emphasized that the committee saw value in such activities, but not to the degree as other proposed activities.

Discussion of Activities Involving Research Methods

Of the four proposed activities in the area, the committee recommended that CPEC focus on the following two:

- Review and assess research methods and designs that attempt to disentangle the effects of student characteristics from the effects of institutional support programs and policies in explaining student success.
- Develop a methodology to estimate the net return on investment to the state resulting from increases in continuation rates and decreases in attrition.

Of the two recommended activities, highlighting the net return on investment was considered crucial. This helps make the case for continued enrollment growth funding, which is greatly needed, but which might not be funded because of competing social needs.

Display 6 lists ten student success research activities recommended by the advisory committee. CPEC staff will carefully consider and weigh the comments, suggestions, and recommendations and determine which activities could be completed over the next four months. The next advisory committee meeting is being scheduled for February or March 2011.

DISPLAY 5 Summary of Comments and Questions Raised by CPEC Advisory Committee Members at the November 12 Meeting

Do students enrolled in local service areas have higher time to degree and success rates?

Do differences between success measures, such as time-to-degree and persistence by ethnicity and gender, disappear when taking into account academic preparedness?

What is the effect of cohort size and composition when examining persistence and graduation rates?

In addition to examining graduation and completion rates, what was the quality of the student's experience during the time enrolled? Was the student able to take all of the courses that were desired? Was the student able to be involved in desired extracurricular activities, such as meaningful work experience and student-faculty mentoring?

Of students who are involved in extracurricular activities, which types of activities lead to positive and negative student success outcomes?

How has the emergence of online instruction and learning affected student success?

What institutional characteristics should be considered when using surveys to examine quality?

CPEC should clarify for the state the distinction between an institution's responsibility for enhancing student success on a campus-wide basis and a student's own personal responsibility for achieving success.

It is important to examine student success in relation to the particular mission of each system. To do otherwise would likely result in conclusions difficult to interpret and address.

How do immediate and long-term student goals relate to student success?

Take a look at Early Assessment Program results longitudinally. What is happening during one's senior year of high school? Are schools utilizing senior instruction effectively to make sure students are prepared for higher education?

How many students successfully move through basic skills programs in the community colleges? What is the time to completion for those programs and how many get into college-level courses?

How do personal characteristics, such as time management, prioritizing, and goal setting affect student success?

How does the amount of parent involvement at K-12 schools affect student success in higher education?

How can CPEC help the systems understand the experiences of students that leave college and then return?

Members endorsed efforts currently underway to create a common set of courses that provide students with an articulated transfer path to CSU and UC across all community college campuses that could allow students to attend multiple campuses and still stay on track to transfer.

DISPLAY 6 Student Success Research Activities Recommended by the CPEC Student Success Advisory Committee

Using CPEC longitudinal data, derive recent improvements in UC and CSU student persistence and graduation rates by ethnicity, gender, and admission status (i.e., freshman, community college transfer).

Model the increase in undergraduate demand resulting from improvements in persistence and graduation rates. Estimate the increase in enrollment growth funding and physical capacity required to support demand. Determine the possible impact and consequence of increases in cohorts of continuing students on first-time freshmen and transfer admission slots.

Calculate average elapsed time and average cumulative units of students transferring from community colleges to UC, CSU, and selected independent institutions.

Identify and consider other measures of student success for possible inclusion in CPEC study. Determine a valid method to conceptualize and operationalize the measures.

Identify major obstacles and barriers to increasing community college transfer, undergraduate degree production, enrolled and elapsed time-to-degree, and student learning.

Identify institutional support programs and policies that appear to be most effective in enhancing student success (e.g., learning communities, innovative student advising counseling, and engagement strategies).

Review and assess research methods and designs that attempt to disentangle the effects of student characteristics from the effects of institutional support programs and policies in explaining student success.

Develop a methodology to estimate the net return on investment to the state resulting from increases in continuing rates and decreases in student attrition.

Following completion of research activities, develop state-level policy solutions and implementation strategies to enhance student success on a statewide basis.

Consider the merits of policy recommendations developed by other entities aimed at improving student success

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